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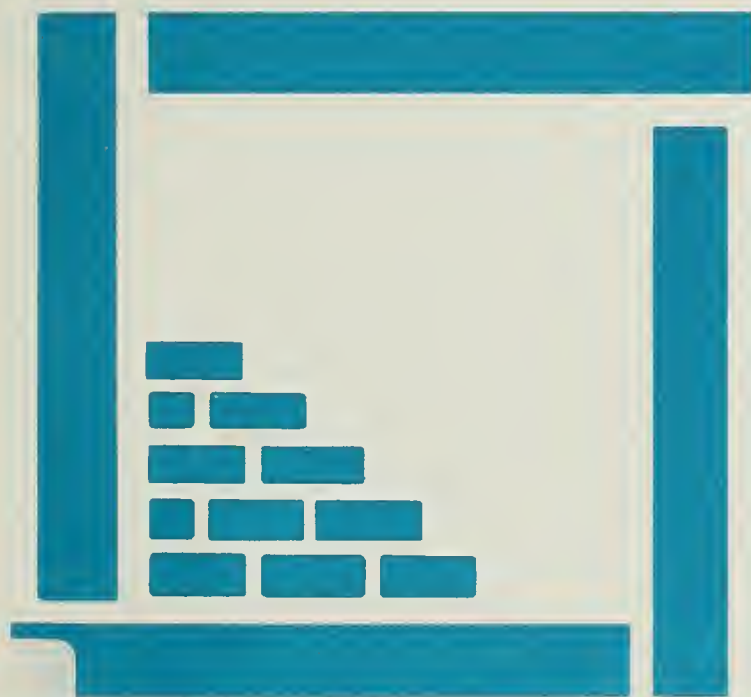
Census of Construction Industries

CC87-I-4

INDUSTRY SERIES

General Contractors— Industrial Buildings and Warehouses

Industry 1541



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ACKNOWLEDGMENTS

Many persons participated in the various activities of the 1987 Census of Construction Industries.

The overall planning and review of the census operations were performed by the staff of the Office of the Assistant Director for Economic and Agriculture Censuses.

This report was prepared in the Construction Statistics Division. **Barry A. Rappaport**, Assistant Division Chief for Industry Surveys, was responsible for the overall planning, management, and coordination of the census of construction industries. Planning and implementation were under the direction of **A. William Visnansky**, Chief, Census Operations Branch, with primary staff assistance by **Juliana Van Berkum**, **Barbara J. Hadden**, **Edward R. Glover**, **Susan L. Hostetter**, **Shirley M. Baker**, and **Carolyn J. Stone**. Under the direction of **Jesse Pollock**, **Edward K. Ricketts** and **Dennis K. Duke** developed the sampling plans and variance and estimation specifications.

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If you have any questions concerning the statistics in this report, call (301) 763-7546.

1987

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General Contractors— Industrial Buildings and Warehouses

Industry 1541

Issued January 1990



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PURPOSE AND USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.

Trade associations study trends in their own and competing industries, and keep their members informed of market changes.

Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the—

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

AVAILABILITY OF THE DATA

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan

areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

One important change involves receipts of contractors and builders. Prior to 1987, the Census of Construction Industries collected receipts as the primary measure of construction activity. For 1987, the census collected the "value of construction work done" to better measure actual construction activity done during the year. Differences between the two concepts occur when work is done in one year and payment received either from the prior or in the succeeding year. In addition, receipts do not include work a contractor performs for its own account and use.

HISTORICAL INFORMATION

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to that time, the individual censuses were taken separately at varying intervals.

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were the first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in

other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as *Current Construction Reports* (building permits, housing starts, and value of new construction put in place), *Current Business Reports* (retail and wholesale trade and service industries), the *Annual Survey of Manufactures*, *Current Industrial Reports*, and the *Quarterly Financial Report*. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the censuses. The *County Business Patterns* program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1987 Economic Censuses and Related Statistics*. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1987 Economic Censuses*. Contact Customer Services for information on availability.

CENSUS OF CONSTRUCTION INDUSTRIES—SCOPE AND CLASSIFICATION

The 1987 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property

into lots as defined in the 1987 Standard Industrial Classification (SIC) Manual.¹ This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

Contract construction—The SIC manual defines construction in three broad types of activity that follow:

1. **Building construction by general contractors or by operative builders**—General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other building projects. Operative builders who build on their own account for sale are also included here. However, investment builders who build structures on their own account for rent are classified in Real Estate.
2. **Heavy construction general contractors**—Heavy construction general contractors are primarily engaged in the construction of highways, bridges, pipelines, sewers and water lines, marine construction, power, and petro-chemical plants and other nonbuilding construction projects. Special trade contractors are classified in heavy construction if they are specifically engaged in the following activities: grading for highway and airport runways; guardrail construction; installation of highway signs; asphalt and concrete construction of roads, highways, streets and public sidewalks; trenching, cable laying; conduit construction; underwater rock removal; pipeline wrapping; or land clearing and leveling.
3. **Construction by other special trade contractors**—These contractors include plumbers, painters, carpenters, electricians, brick layers, roofers, etc. For the most part, they perform their work at the site of construction, although they may also have shops where they perform work incidental to the job site.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others all of the actual construction work or those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

In addition to the industries classified in the SIC manual as Construction, this census also includes one industry

classified in the Real Estate area, SIC 6552, Land Subdividers and Developers, Except Cemeteries. These establishments are engaged in subdividing real property into lots and in developing it for sale on their own account.

Each establishment receiving a questionnaire was requested to report the percent of total dollar value of business done for each kind-of-business activity engaged in during 1987. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction work to total business was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities. It is necessary, however, to assign a single industry code to the establishment based on its major activity. Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities. The industry reports, however, do present data on the extent of secondary activities.

A revised edition of the SIC Manual was issued in 1987. Minor modifications were made to three industries in the construction sector: SIC 1611, Highway and Street Construction Contractors, Except Elevated Highways; SIC 1629, Heavy Construction Contractors, N.E.C; and SIC 1771, Concrete Work Special Trade Contractors. The extent of these modifications are explained in the specific texts for those industries. "Bridge tables" are also included showing selected data tabulated using both the previous classification system and the 1987 revision.

ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1987. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

¹Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

If an establishment engaged in construction and one or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate estimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1987 value of construction work exceeded the gross receipts from each of its other activities.

Construction businesses with no payroll during 1987 (nonemployers) were not required to file census reports. Tabulation of data for these businesses are based on administrative records and are shown only in U.S. summary publications and the geographic area reports series. Refer to the section on "Sample Design" for details. Foreign construction activities were not included in this census.

SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

The companies included in the 1987 Census of Construction Industries were identified as part of an operation common to all 1987 Economic Censuses. Construction companies were divided into employers (companies with payroll) and nonemployers (companies without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government.

Employer Companies

Developing the sampling frame for employer companies—This operation started with obtaining a list of all construction companies in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of companies engaged in business activities in the United States. The file contains the name, address, and form of ownership of each company and also indicates whether or not the company is subject to the FICA. Each company in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each company. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrative records data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer companies. However, for the 1987 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those companies which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment companies and large single-establishment companies. Thus, the 1987 Economic Census list for single-establishment employer companies was obtained from the IRS-SSA, but the list of establishments of multiestablishment employer companies was obtained directly from those companies in the COS. Refer to the section on "Establishment Basis for Reporting" for details.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a company to the proper economic census, but there were a number of companies for which this information was inadequate or unavailable. A special form, NC-9923, General Schedule, was mailed to all such companies, requesting information on the nature of the company's activities. From the information reported, the company was given an industrial classification code and assigned to the appropriate economic census. Since construction companies found in this way were identified only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

Selecting the employer sample—The sample was designed to provide reliable State and metropolitan area estimates for each construction industry. It consisted of all construction establishments in multiestablishment companies, all single-establishment companies with estimated total employment of 20 employees or more, and a probability sample of single-establishment companies with estimated employment of fewer than 20 employees.

Supplementing the sample were construction companies identified from the NC-9923, General Schedule. Also affecting the sample were the misclassified companies; i.e., companies included in the samples of other trade areas which reported they were construction companies and companies originally classified in construction which reported they were not construction companies.

Of the 533,000 single-establishment employer companies initially classified as construction companies, 147,000 were included in the sample. All of the 13,000 establishments of multiestablishment companies were included in the sample. There was a net increase in the sample of 60,000 establishments resulting from establishments originally unclassified (receiving the NC-9923) or misclassified.

The probability sample of the smaller single-establishment companies was a stratified random sample. Strata were formed from all establishments with the same initial four-digit SIC code, in the same State, in the same metropolitan

area or in the balance of the State, and in the same size class based on estimated total employment. If the four-digit SIC code for an establishment was incomplete, the establishment was placed in a stratum for miscellaneous companies. Because they were small, all companies were included in the sample for the following three industries: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

Estimation procedures for 1987 and 1982 data—

Since all larger employer companies and some smaller ones were included in the census, sample estimation was required only for the universe of companies not selected with certainty. The published statistics are the totals of the estimates for the sampled companies and the aggregates for the certainty companies. All estimates for 1987 and 1982 published here are simple unbiased estimates of the form:

$$x'_c = \sum_{i=1}^{n_c} x_i / p_i$$

where: x'_c is the simple unbiased estimate of a characteristic for a publication cell.

x_i is the reported value of a characteristic for an individual establishment in the publication cell.

p_i is the selection probability of that firm.

n_c is the number of firms in the sample for the cell.

Data for certain characteristics were reported as a percentage of the dollar value of business done. Before this formula was applied to those characteristics, it was necessary to convert the reported percentages into dollars.

Reliability of employer statistics—Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimated directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the

sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Relative standard errors have been calculated for all of the published statistics, although they are shown for each statistic only in the tables presenting detailed statistics. Other tables show relative standard errors only for certain characteristics because of lack of space.

As calculated for this report, the relative standard error measures certain nonsampling errors, but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples with the same size and design, between the estimates and the true value being estimated. Nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample; definitional difficulties; differences in interpretation of questions; inability or unwillingness of respondents to provide correct information; and errors made in processing the data. Although no direct measurements of the biases have been obtained, it is believed that most of the important response and operational errors were detected in the course of reviewing the data for reasonableness and consistency.

A potential source of bias is in the imputation for those establishments that have not responded by the time of final publication. Data were estimated for establishments that did not report by that date, although selected establishments were contacted again to obtain as much information on the telephone as possible. Some publication cells in which more than 40 percent of the data were not reported have been suppressed.

Nonemployer Companies

As described earlier, the information derived from the business income tax returns of all companies was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with companies without payroll were treated as nonemployers. The nonemployer construction companies were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return.

Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

CENSUS REPORT FORMS

Information for the 1987 Census of Construction Industries was obtained from employer establishments primarily through the use of twenty-four questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the following SIC groups: 15, 16, 171, 172, 173, 174, 175, 176, 177, 178, and 179 and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and omitted some of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were elicited from construction trade associations and appropriate advisory groups. The Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

DATA PROCESSING

The 1987 census report forms were mailed out in December 1987. They were mailed from and returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished. Collection of these report forms was essentially completed in July 1988.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters near Washington, DC.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding), and imputation for missing items or for reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all

revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

GEOGRAPHIC CLASSIFICATION

Information for the 1987 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. A separate code was assigned on each basis allowing us to present data by both physical locations of the establishment and location of construction work.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected MSA's, CMSA's and PMSA's.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work of one firm may be subcontracted to other construction firms and also be included in the subcontractors' value of construction work. To avoid this duplication, a "net" value of construction work figure has been derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work.

Duplication in value of business between other construction and nonconstruction industries, results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is defined in the 1987 Census of Construction Industries as equal to dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, land receipts are also subtracted from dollar value of business done.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1987 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, DC, 20233.

To discuss a special tabulation before submitting specifications, call 301-763-7546.

COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1987 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas the construction census figures cover both new construction and maintenance and repair work done by establishments classified in the construction industry. Significant amounts of construction are done by establishments classified outside of construction (in real estate, manufacturing, utilities and communications, for example), both as "force account" construction and construction done for others. In addition, the value in place series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in the Census of Construction.

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

*	Sampling error exceeds 40 percent.
**	Represents the sum of all employees during pay periods including 12th of March, May, August, and November, divided by 4.
-	Represents zero.
†	Represents value of construction work less costs for construction work subcontracted to others. (See Duplication in Value of Construction Work.)
††	Represents dollar value of business done less costs for construction work subcontracted to others, and costs for materials, components, supplies, and fuels. In SIC's 1531 and 6552, land receipts are also subtracted from dollar value of business done. (See Duplication in Value of Construction Work.)
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate, associated relative standard error, or a consistency review.
(W)	Greater than zero but less than 1 percent.
(X)	Not applicable.
n.s.k.	Not specified by kind.

Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For U.S.	By State	By employment size	By size class of dollar value of business done	By type, class, ownership, kind of business, and location of construction ¹	By specialization in types of construction
Assets and depreciation (gross book value):						
Beginning of year—buildings, machinery and equipment	3					
End of year—total	1, 3	1	5	6		
End of year—buildings, machinery and equipment	3					
Depreciation charges during year—buildings, machinery and equipment	3					
Capital expenditures:						
Total capital expenditures	1, 3	1	5	6		
New buildings—machinery and equipment	3					
Used buildings—machinery and equipment	3					
Communication services, costs for	2					
Employees:						
All employees—average number	1, 2	1	5	6		8
Construction workers—average number	1, 2, 9	1, 9				
Other employees—average number	2					
Employer costs for fringe benefits—legally required and voluntary expenditures	2					
Establishments—number in business during year	1, 2, 4, 9	1, 9	5	6		8
Hours—construction workers:						
Total	1, 2, 9	1, 9	5	6		
Quarterly	2, 9	9				
Inventories	4					
Materials, components, supplies, and fuels—costs for	1, 2	1	5	6		
Payroll:						
First quarter, all employees	2					
Annual:						
All employees	1, 2	1	5	6		8
Construction workers	1, 2	1				
Other employees	2					
Power, fuels, and lubricants—costs for	2					
Proprietors and working partners	2					
Ratios, State	13	13				
Value and receipts:						
Dollar value of business done, total	2		5	6	11	
Value of construction work, total	1, 2, 4	1	5	6	2, 7, 10	8
For work subcontracted in from others	2					
Other business receipts and land receipts ²	2					
Net value of construction work	1, 2	1	5	6		8
Value added	1, 2	1	5	6		8
Rental costs:						
Total	1, 2	1	5	6		
For machinery and equipment	2					
For buildings	2					
Repairs to buildings and other structures	2					
Repairs to machinery and equipment	2					
Selected industry ratios	12					
Subcontract work to others, costs for	1, 2	1	5	6		8

Note: Data for 1982 and earlier years are also available in some of these tables.

¹Type—buildings, roads, etc. Class—new construction; additions, alterations, or reconstruction; or maintenance and repair work. Ownership—private or government owned.

²Land receipts are shown separately for SIC's 1531 and 6552 only.

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General Contractors—Industrial Buildings and Warehouses

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Statistics for Establishments Without Payroll appear in the U.S. Industry Summary Report.

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SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in the construction of industrial buildings such as aluminum plants, automobile assembly plants, pharmaceutical manufacturing plants and commercial warehouses (including new work, additions, alterations, remodeling, and repair). For additional examples, refer to the 1987 Standard Industrial Classification (SIC) Manual published by the Office of Management and Budget, Executive Office of the President.

During 1987, the establishments with paid employees classified in this industry accounted for \$22.3 billion in total dollar value of business. Of this amount, \$21.5 billion were for the value of construction work. These establishments paid out \$4.9 billion for materials, components, and supplies and \$10.4 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for this industry were \$171 million. Value added for 1987 was \$6.9 billion.

There were 7,014 establishments with total employment averaging 143,001 during the year. Total payroll for 1987 was \$3.6 billion. Total hours worked by construction workers during the year were 195 million hours.

Larger establishments with 20 employees or more, while representing only 21 percent of the total number of employer establishments in this industry accounted for 79 percent of all business done.

A "construction establishment" is defined as a relatively permanent office, or other place of business, where the usual business activities related to construction are conducted. A separate census report was required from each sampled establishment covering domestic operations. Separate reports were not, however, required for each project or construction site.

In 1987, the value of construction work was collected to better measure actual construction activity done during the year. Construction receipts, as reported in earlier censuses, may have included the value of work done before or after the calendar year and may have excluded the value of work in progress during the calendar year. Receipts may have also excluded work done by builders engaged in construction for sale on their own account or for their own use. All dollar values are shown in current dollars for the years specified and have not been adjusted for inflation.

The data in this report are estimated from a sample survey and are subject to sampling variability as well as errors of response and nonreporting. The relative standard error shown in the tables is a measure of sampling variability. Descriptions of the sampling, estimating procedures, and data reliability are included in the Introduction.

Figure 1. **Value of Construction Work by Type of Construction**
(Percent)

1987 
1982 

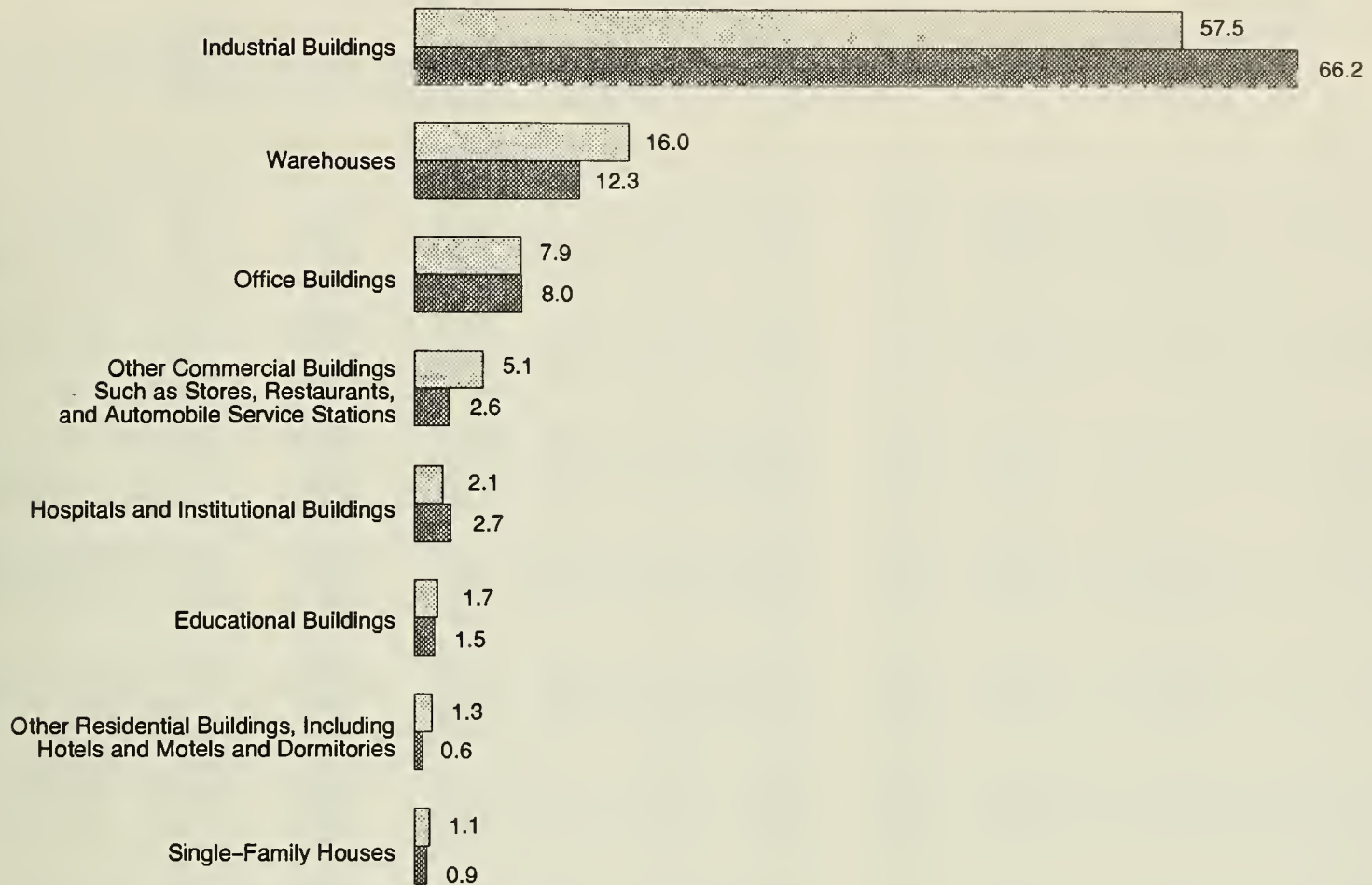


Figure 2. **Selected Costs Per Dollar Value of Business Done**
(Percent)

1987 
1982 

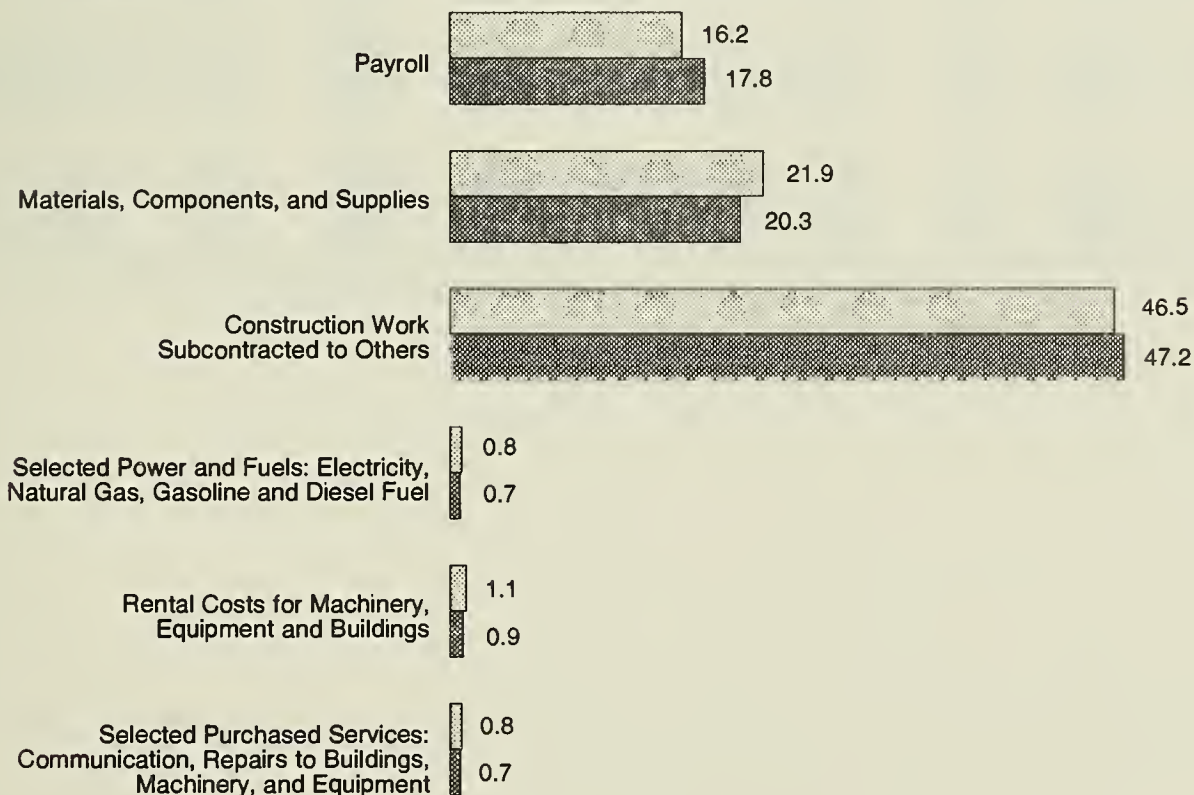


Table 1. General Statistics for Establishments With Payroll by State: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	1987							
	Number of establishments	Employees**		Payroll		Construction worker hours (thousands)	Value of construction work	Net value of construction work†
		All	Construction workers	All employees	Construction workers			
A	B	C	D	E	F	G	H	
United States -----	7 014	143 001	110 785	3 618 878	2 496 936	195 425	21 461 568	11 094 502
Alabama -----	109	8 758	7 977	233 218	217 960	14 249	584 147	(D)
Alaska -----	43	361	246	12 375	8 709	406	55 960	39 303
Arizona -----	88	1 087	728	25 535	15 362	1 379	185 471	90 295
Arkansas -----	39	1 017	823	20 550	15 061	1 711	85 364	55 863
California -----	797	11 169	8 013	343 702	218 446	13 263	2 643 336	1 236 091
Colorado -----	79	1 125	833	27 095	17 350	1 700	143 897	66 011
Connecticut -----	105	1 356	1 012	36 396	25 558	1 824	193 194	117 257
Delaware -----	30	427	314	7 876	5 622	501	41 939	26 880
District of Columbia -----	3	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Florida -----	348	4 548	3 360	90 851	59 471	6 141	595 060	320 904
Georgia -----	214	5 219	4 097	104 672	69 443	6 875	674 156	381 653
Hawaii -----	17	373	265	12 061	8 339	474	73 971	38 164
Idaho -----	49	2 238	1 092	(D)	32 793	1 595	(D)	41 179
Illinois -----	275	4 808	3 514	(D)	91 065	5 893	776 477	340 718
Indiana -----	218	4 554	3 717	119 811	91 491	6 124	577 711	356 329
Iowa -----	103	1 565	1 229	30 666	22 493	2 163	149 205	104 890
Kansas -----	88	1 248	908	25 997	16 288	1 819	163 750	101 978
Kentucky -----	83	2 493	1 975	58 189	43 012	3 908	318 885	164 260
Louisiana -----	112	1 898	1 537	35 583	24 826	2 690	155 487	115 124
Maine -----	*20	365	249	7 794	4 384	*508	66 774	31 340
Maryland -----	110	2 327	1 925	49 136	36 754	3 846	246 329	163 036
Massachusetts -----	169	3 148	2 263	82 553	51 094	3 956	607 382	283 315
Michigan -----	278	5 925	4 509	168 246	101 088	7 797	1 140 377	378 669
Minnesota -----	102	1 603	1 216	40 705	24 809	2 109	289 067	194 127
Mississippi -----	88	1 204	958	20 262	14 394	1 711	144 574	96 588
Missouri -----	168	4 963	3 757	144 303	101 394	7 223	962 729	516 763
Montana -----	*21	*168	*122	3 007	2 091	*114	25 765	11 835
Nebraska -----	51	737	558	14 753	10 561	1 078	86 354	54 742
Nevada -----	28	540	403	13 716	10 436	683	115 753	47 876
New Hampshire -----	33	764	564	20 235	12 884	957	(D)	75 580
New Jersey -----	309	3 915	2 796	109 522	68 698	4 963	696 373	364 316
New Mexico -----	63	643	476	11 640	8 069	687	77 820	41 793
New York -----	423	7 435	5 544	227 625	154 584	10 464	1 171 459	645 940
North Carolina -----	190	8 606	6 974	204 628	130 228	12 608	1 248 633	578 969
North Dakota -----	30	366	283	7 182	4 737	547	32 143	24 608
Ohio -----	380	6 328	4 734	166 359	114 941	8 504	1 026 470	518 783
Oklahoma -----	53	592	476	13 644	10 608	939	57 246	36 769
Oregon -----	84	1 068	814	24 392	15 437	1 193	129 056	87 069
Pennsylvania -----	318	7 009	5 476	176 571	112 717	9 249	(D)	(D)
Rhode Island -----	51	950	666	26 998	16 758	1 090	269 141	91 483
South Carolina -----	114	6 181	4 940	170 616	129 030	8 764	1 272 287	764 238
South Dakota -----	16	227	171	4 177	2 852	242	21 672	13 734
Tennessee -----	137	3 864	3 192	73 106	55 141	5 768	438 788	263 364
Texas -----	389	10 411	8 698	214 658	165 680	14 911	810 846	531 361
Utah -----	74	726	556	16 756	11 953	1 024	109 874	58 157
Vermont -----	11	278	219	6 788	4 310	544	40 920	19 922
Virginia -----	120	2 753	2 183	53 650	35 922	3 747	392 775	166 645
Washington -----	144	1 878	1 370	50 627	32 633	2 291	329 949	163 555
West Virginia -----	49	685	582	14 631	11 690	901	53 197	41 347
Wisconsin -----	155	2 830	2 258	73 096	54 672	4 015	369 335	208 072
Wyoming -----	*14	153	104	3 333	1 860	209	20 108	10 273

†In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

1987—Con.						1982			Relative standard error of estimate (percent) for column—			Location of establishment
Value added††	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted to others	Rental cost for machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Total construction receipts¹	Value added††				
I	J	K	L	M	N	O	P	Q	B	H	M	
6 881 749	5 068 052	10 367 065	245 238	206 643	1 382 253	153 821	17 834 735	5 755 674	1	1	2	U.S.
321 037	(D)	(D)	7 422	4 265	22 323	8 429	629 783	244 421	2	(D)	25	AL
25 622	(D)	16 656	632	1 376	9 186	812	55 225	24 416	15	15	8	AK
55 587	39 177	95 175	2 072	1 398	11 970	827	127 550	41 197	7	10	39	AZ
29 723	27 229	29 501	1 177	748	14 310	987	81 766	33 009	8	7	16	AR
761 244	534 146	1 407 245	31 283	19 404	120 917	11 234	2 304 475	863 859	3	2	4	CA
49 684	26 969	77 886	2 404	1 650	14 865	2 591	467 452	85 534	7	7	10	CO
82 871	44 173	75 937	1 765	3 825	22 234	1 022	110 877	38 449	10	10	9	CT
15 859	(D)	15 059	537	(D)	3 047	626	65 673	17 266	11	3	(D)	DE
(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	DC
170 901	161 228	274 156	7 821	5 681	34 756	5 036	505 501	125 992	5	5	14	FL
240 091	162 513	292 503	5 960	7 011	40 680	3 979	390 692	96 888	3	3	11	GA
28 240	(D)	35 807	1 052	790	11 582	337	50 559	19 452	10	6	18	HI
134 661	116 857	(D)	5 054	743	*21 236	496	49 601	15 906	3	11	33	ID
203 067	170 294	435 759	6 152	4 166	43 903	5 986	830 067	251 813	4	3	14	IL
197 201	170 315	221 382	4 906	5 783	52 230	6 098	453 907	153 901	3	3	7	IN
54 356	52 153	44 315	1 059	1 998	17 525	2 169	170 109	53 753	8	7	30	IA
48 113	55 920	61 772	1 473	1 010	16 507	1 281	110 314	47 044	9	12	10	KS
99 086	89 246	154 624	4 316	2 682	20 541	1 890	189 297	72 655	5	6	7	KY
73 682	42 792	40 362	3 771	901	13 684	5 518	352 575	174 964	8	8	10	LA
13 692	18 041	35 434	667	618	*11 614	469	29 422	7 493	29	23	23	ME
110 129	54 605	83 293	3 116	4 307	20 798	1 364	159 110	34 273	9	5	7	MD
164 943	126 912	324 067	9 484	5 383	28 747	3 008	417 897	105 759	5	5	15	MA
352 453	202 022	761 708	10 992	7 096	56 294	4 594	1 454 673	314 304	3	4	8	MI
109 654	86 198	94 939	5 030	1 319	21 762	1 748	185 071	51 031	6	4	11	MN
40 221	56 473	47 985	836	*441	7 911	1 466	113 693	38 412	9	7	42	MS
358 337	180 625	445 966	5 827	9 355	73 204	6 288	861 383	258 877	4	2	3	MO
6 672	(D)	13 929	(S)	(S)	(D)	232	35 231	10 212	42	27	(S)	MT
28 269	26 599	31 611	434	1 458	12 000	795	48 567	16 912	13	18	21	NE
33 494	18 455	67 877	735	1 209	5 646	223	33 813	8 511	9	11	37	NV
33 391	(D)	(D)	409	(D)	(D)	422	35 993	11 177	4	4	(D)	NH
227 424	157 163	332 057	7 870	7 103	49 405	3 650	430 318	133 479	5	5	18	NJ
25 675	16 892	36 026	1 029	*622	*8 849	921	87 363	24 113	14	13	51	NM
435 828	232 233	525 519	17 576	35 615	83 957	5 744	694 180	234 401	4	4	3	NY
257 847	329 755	669 664	25 183	15 693	115 784	9 738	900 657	345 895	2	2	6	NC
10 027	14 799	7 534	389	*368	3 074	718	59 461	15 421	19	16	42	ND
306 643	248 166	507 686	10 768	12 122	67 859	7 384	822 126	269 223	3	3	5	OH
21 728	17 811	20 476	551	543	5 990	1 253	122 244	32 820	13	14	3	OK
50 410	38 789	41 986	1 106	*1 050	9 515	788	80 671	28 600	12	10	45	OR
307 851	238 363	372 309	9 924	9 665	55 713	6 600	804 314	275 787	3	(D)	7	PA
41 493	51 488	177 658	1 932	2 191	8 876	319	34 748	18 744	11	6	11	RI
443 024	344 600	508 049	13 790	2 252	20 457	5 267	372 059	153 672	2	1	16	SC
7 861	(D)	7 937	163	305	4 922	232	12 970	5 837	13	14	40	SD
168 375	123 174	175 423	3 723	2 874	35 152	3 620	327 812	106 351	4	4	7	TN
323 973	228 496	279 485	11 114	5 507	50 495	15 375	1 519 445	545 955	2	3	8	TX
32 195	26 691	51 717	1 684	996	9 086	1 078	124 620	29 791	12	11	27	UT
10 680	9 827	20 998	269	374	4 554	573	54 608	16 344	12	15	33	VT
98 034	78 248	226 130	3 129	3 594	37 285	4 299	402 766	80 340	5	7	10	VA
97 038	72 943	166 393	4 254	1 420	20 745	2 233	293 383	82 364	5	6	15	WA
28 778	13 383	11 850	884	930	6 274	1 030	73 905	38 017	10	13	38	WV
134 820	94 711	161 263	2 220	5 011	36 332	2 691	259 789	88 047	8	11	27	WI
5 795	5 000	9 834	*223	305	2 166	127	11 402	4 983	31	30	30	WY

Table 2. Detailed Statistics for Establishments With Payroll: 1987 and Earlier Census Years

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	1982	1977	1972	Relative standard error of estimate (percent)			
					1987	1982	1977	1972
Number of establishments in business during year	7 014	7 435	8 259	9 538	2	1	2	2
Proprietors and working partners	962	1 359	2 867	3 976	8	5	5	5
All employees**	143 001	153 821	202 070	173 094	1	1	(W)	1
Construction workers:								
March	104 202	117 040	151 301	129 778	1	1	(W)	1
May	108 678	124 264	169 142	139 413	1	1	(W)	1
August	116 929	126 577	184 358	156 317	1	1	(W)	1
November	113 322	115 135	177 970	148 975	1	1	1	1
Average	110 785	121 517	170 787	144 625	1	1	(W)	1
Other employees:								
March	31 640	32 238	30 337	27 762	1	1	1	1
May	32 008	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
August	32 609	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
November	32 616	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Average	32 215	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Construction worker hours (thousands):								
January to March	45 056	52 797	(NA)	(NA)	1	1	(NA)	(NA)
April to June	48 232	57 128	(NA)	(NA)	1	1	(NA)	(NA)
July to September	51 738	58 127	(NA)	(NA)	1	1	(NA)	(NA)
October to December	50 397	51 426	(NA)	(NA)	1	1	(NA)	(NA)
Total hours worked	195 425	219 480	(NA)	(NA)	1	(W)	(NA)	(NA)
Payroll, all employees	3 618 878	3 231 000	2 852 817	1 729 634	1	(W)	(W)	1
Payroll, construction workers	2 496 936	2 344 085	2 247 193	1 356 140	1	(W)	(W)	1
Payroll, other employees	1 121 942	886 914	605 623	373 494	1	1	(W)	1
First quarter payroll, all employees	833 713	770 770	594 176	(NA)	1	(W)	(W)	(NA)
Employer costs for fringe benefits, all employees	862 348	581 050	539 369	(NA)	1	(W)	(W)	(NA)
Legally required expenditures	554 902	432 397	315 495	(NA)	1	(W)	(W)	(NA)
Voluntary expenditures	307 446	148 652	223 875	(NA)	1	1	(W)	(NA)
Dollar value of business done	22 316 867	18 107 888	13 063 111	8 666 746	1	(W)	1	1
Value of construction work ¹	21 461 568	17 834 735	12 855 514	8 507 370	1	(W)	(W)	1
Value of construction work subcontracted in from others	1 143 085	835 351	351 937	236 831	3	2	1	3
Land receipts ²	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other business receipts	855 299	273 153	207 597	159 376	1	1	1	2
Net value of construction work†	11 094 502	9 293 778	7 545 253	4 805 838	1	(W)	(W)	1
Value added††	6 881 749	5 755 674	4 257 546	2 751 905	1	(W)	(W)	1
Selected costs	15 435 118	12 352 213	8 805 565	5 914 841	1	(W)	1	1
Materials, components, and supplies ³	4 897 508	3 680 814	3 377 489	2 213 309	1	1	(W)	1
Construction work subcontracted to others	10 367 065	8 540 956	5 310 261	3 701 532	1	(W)	1	1
Selected power, fuels, and lubricants	170 543	130 442	117 815	(NA)	2	1	1	(NA)
Electricity	29 785	23 988	21 841	(NA)	1	1	1	(NA)
Natural gas	9 366	7 158	10 203	(NA)	1	1	1	(NA)
Gasoline and diesel fuel	119 340	90 585	65 433	(NA)	2	1	1	(NA)
On highway use	96 819	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Off highway use	22 520	(NA)	(NA)	(NA)	10	(NA)	(NA)	(NA)
Other, including lubricating oils and greases	12 051	8 710	20 338	(NA)	1	2	1	(NA)
Rental cost for machinery, equipment, and buildings	245 238	163 301	135 838	(NA)	1	1	1	(NA)
For machinery and equipment	174 985	129 922	114 051	72 513	2	1	1	2
For buildings	70 252	33 379	21 787	(NA)	2	2	1	(NA)
Selected purchased services	171 554	127 122	109 938	(NA)	1	1	2	(NA)
Communication services	60 352	43 916	40 783	(NA)	1	1	5	(NA)
Repairs to buildings and other structures	13 647	8 500	8 403	(NA)	3	2	2	(NA)
Repairs to machinery and equipment	97 554	74 705	60 751	(NA)	1	1	1	(NA)
Ownership of construction projects:								
Value of construction work ¹	21 461 568	17 834 735	12 855 514	8 507 370	1	(W)	(W)	1
Government owned	3 464 059	2 204 610	1 343 270	1 375 323	1	2	(W)	1
Federal	1 536 865	(NA)	(NA)	(NA)	2	(NA)	(NA)	(NA)
State and local	1 927 194	(NA)	(NA)	(NA)	2	(NA)	(NA)	(NA)
Privately owned	17 997 508	15 630 124	11 512 244	7 132 047	1	(W)	1	1

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

²Data were collected separately for establishments classified in SIC 1531, Operative Builders, and SIC 6552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.

³For 1972, includes data for power, fuels, and lubricants.

Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	1982	Relative standard error of estimate (percent)	
			1987	1982
BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT				
Beginning-of-year gross book value of depreciable assets	1 263 969	1 600 265	2	1
Capital expenditures, other than land	206 643	166 244	2	1
New	165 243	132 342	2	1
Used	41 399	33 901	5	3
Retirements and disposition of depreciable assets	88 359	61 740	3	5
End-of-year gross book value of depreciable assets	1 382 253	1 704 769	2	1
Depreciation charges during year	154 276	193 523	2	1
Buildings and other Structures, Additions, and Related Facilities				
Beginning-of-year gross book value of depreciable assets	335 495	364 628	4	2
Capital expenditures, other than land	38 761	36 278	4	3
New buildings and other structures	34 110	29 508	4	3
Used buildings and other structures	4 651	6 770	11	3
Retirements and disposition of depreciable assets	17 679	13 793	8	19
End-of-year gross book value of depreciable assets	356 577	387 113	4	2
Depreciation charges during year	28 166	29 053	5	2
Machinery and Equipment				
Beginning-of-year gross book value of depreciable assets	928 474	1 235 754	2	1
Capital expenditures, other than land	167 881	129 966	2	2
New machinery and equipment, including automobiles and trucks	131 133	102 834	2	1
New automobiles and trucks, intended primarily for highway use	55 362	38 125	3	3
Used machinery and equipment, including automobiles and trucks	36 748	27 131	5	4
Retirements and disposition of depreciable assets	70 680	48 064	3	2
End-of-year gross book value of depreciable assets	1 025 675	1 317 656	2	1
Depreciation charges during year	126 110	164 469	2	1

Table 4. Value of Inventories for Establishments With Payroll: 1987 and 1986

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments:		
Number.....	7 014	2
Value of construction work.....	21 461 568	1
Establishments with inventories:		
Number.....	2 773	4
Value of construction work.....	7 828 848	1
Inventories ¹ :		
End of 1987, materials and supplies.....	104 093	7
End of 1986, materials and supplies.....	142 034	9
Establishments with no inventories:		
Number.....	3 435	4
Value of construction work.....	10 635 283	1
Establishments not reporting:		
Number.....	806	6
Value of construction work.....	2 997 437	2

¹Inventories at cost or market prior to any adjustment to correct to LIFO values.

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with an average of—								
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more
1987										
Number of establishments.....	7 014	2 566	1 606	1 336	1 008	304	149	25	8	9
All employees**.....	143 001	5 847	10 672	17 786	30 313	20 367	22 599	8 897	5 044	21 471
Payroll, all employees.....	3 618 878	106 747	206 827	397 977	732 379	513 061	604 920	273 056	159 233	624 675
Construction worker hours (thousands).....	195 425	5 876	11 793	22 068	41 883	28 142	33 946	13 574	7 070	31 070
Dollar value of business done.....	22 316 867	1 032 038	1 314 269	2 448 626	4 433 096	3 317 906	4 051 146	2 446 944	(D)	3 272 840
Value of construction work [†]	21 461 568	998 067	1 279 393	2 417 274	4 348 923	3 233 935	3 884 650	1 568 865	3 730 460	(D)
Net value of construction work [†]	11 094 502	573 653	747 019	1 405 523	2 348 572	1 662 987	1 824 984	651 796	351 741	1 528 225
Value added ^{††}	6 881 749	310 626	457 969	840 076	1 428 642	933 141	1 141 456	721 039	(D)	1 048 800
Cost of materials, components, supplies, and fuels.....	5 068 052	296 998	323 927	596 799	1 004 103	813 817	850 024	360 339	822 043	(D)
Cost of construction work subcontracted to others.....	10 367 065	424 413	532 373	1 011 751	2 000 350	1 570 947	2 059 666	917 069	1 850 494	(D)
Rental cost for machinery, equipment, and buildings.....	245 238	11 276	18 755	28 965	46 170	33 971	42 776	17 449	3 546	42 328
Capital expenditures, other than land.....	206 643	9 003	15 381	28 995	39 254	22 743	30 066	40 904	4 825	15 469
End-of-year gross book value of depreciable assets.....	1 382 253	74 468	137 481	206 176	347 586	187 458	169 509	114 912	50 727	93 932
1982										
All employees**.....	153 821	6 138	11 356	18 611	32 826	22 378	20 405	10 064	10 344	21 697
Total construction receipts ¹	17 834 735	563 758	1 069 927	1 871 921	3 881 230	2 607 320	2 442 554	970 572	2 420 988	2 006 464
Value added ^{††}	5 755 674	174 488	367 741	600 296	1 158 514	840 575	650 764	322 205	803 557	837 531
1987 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)										
All employees**.....	1	5	5	3	2	1	(W)	(W)	(W)	(W)
Net value of construction work [†]	1	6	4	3	2	(W)	(W)	(W)	(W)	(W)
Capital expenditures, other than land.....	2	14	12	7	5	1	(W)	(W)	(W)	(W)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 6. Selected Statistics by Size Class of the Dollar Value of Business Done for Establishments With Payroll: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with dollar value of business done									
		Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
1987											
Number of establishments -----	7 014	(S)	(S)	397	957	1 276	1 103	1 435	728	383	372
All employees** -----	143 001	(S)	(S)	901	3 844	7 014	8 978	19 954	20 063	16 362	65 417
Payroll, all employees -----	3 618 878	(S)	(S)	9 118	47 994	109 550	172 697	434 281	472 283	412 993	1 956 661
Construction worker hours (thousands) -----	195 425	(S)	(S)	940	4 398	7 823	10 426	26 479	28 065	22 888	94 085
Dollar value of business done -----	22 316 867	(S)	(S)	30 195	170 755	448 865	797 839	2 276 098	2 484 786	2 697 551	13 402 069
Value of construction work ¹ -----	21 461 568	(S)	(S)	29 367	165 883	436 265	771 825	2 230 515	2 442 564	2 643 736	12 733 147
Net value of construction work† -----	11 094 502	(S)	(S)	25 245	132 230	332 668	524 786	1 419 556	1 519 380	1 361 826	5 772 270
Value added†† -----	6 881 749	(S)	(S)	17 162	81 618	207 360	303 917	850 992	902 800	797 306	3 716 149
Cost of materials, components, supplies, and fuels -----	5 068 052	(S)	(S)	8 911	55 483	137 908	246 882	614 147	658 801	618 334	2 725 042
Cost of construction work subcontracted to others -----	10 367 065	(S)	(S)	4 122	33 652	103 597	247 039	810 959	923 183	1 281 910	6 960 877
Rental cost for machinery, equipment, and buildings -----	245 238	(S)	(S)	564	3 242	10 563	10 307	28 943	29 058	29 951	132 564
Capital expenditures, other than land -----	206 643	(S)	(S)	*560	3 217	11 189	12 295	27 821	23 047	24 763	103 741
End-of-year gross book value of depreciable assets -----	1 382 253	(S)	(S)	4 718	37 103	69 284	98 177	231 467	192 355	192 169	555 562
1982											
All employees** -----	153 821	394	562	1 386	5 251	7 592	11 122	22 679	20 302	20 761	63 770
Total construction receipts ¹ -----	17 834 735	4 440	11 080	44 506	207 035	434 474	739 611	2 044 597	2 096 631	2 599 495	9 652 864
Value added†† -----	5 755 674	1 737	4 665	20 932	93 280	183 734	291 430	688 412	673 189	821 223	2 977 069
1987 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees** -----	1	(S)	(S)	14	9	7	5	3	2	1	(W)
Net value of construction work† -----	1	(S)	(S)	12	8	6	5	3	3	2	(W)
Capital expenditures, other than land -----	2	(S)	(S)	53	21	15	13	7	7	4	(W)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

¹In earlier censuses construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Type of construction	Value of construction work ¹				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction ²	Maintenance and repair				
	A	B	C	D	A	B	C	D
1987								
Value of construction work ¹	21 461 568	15 455 435	4 247 698	1 536 161	1	1	1	1
Building construction	20 386 878	14 829 588	4 082 287	1 475 002	1	1	1	1
Single-family houses	227 510	150 298	58 626	18 585	4	5	6	8
Single-family houses, detached	183 864	116 921	52 825	14 117	5	6	6	8
Single-family houses, attached	43 645	33 377	5 800	4 467	4	4	15	19
Other residential buildings, including hotels and motels	283 754	231 650	47 973	4 131	1	1	4	10
Hotels and motels	178 705	150 987	26 805	912	2	1	6	30
Other residential buildings, excluding hotels and motels	105 049	80 662	21 167	3 219	3	3	6	9
Office buildings	1 688 344	1 272 576	380 166	35 601	1	1	2	7
Other commercial buildings such as stores, restaurants, and automobile service stations	1 098 192	833 992	226 967	37 233	1	1	3	4
Industrial buildings and warehouses	15 777 425	11 481 842	2 954 814	1 340 768	1	1	1	1
Industrial buildings	12 346 040	8 600 367	2 489 655	1 256 017	1	1	1	1
Warehouses	3 431 385	2 881 475	465 158	84 751	2	2	3	5
Educational buildings	358 045	229 839	115 926	12 279	2	2	3	7
Hospitals and institutional buildings	440 284	247 050	188 150	5 083	1	1	2	11
Other nonresidential buildings	513 324	382 341	109 665	21 332	1	1	12	11
Nonbuilding construction	852 418	625 848	165 411	61 159	1	1	1	4
Construction work, n.s.k.	222 271	(NA)	(NA)	(NA)	3	(NA)	(NA)	(NA)
1982								
Value of construction work ¹	17 834 735	15 320 160	(NA)	1 257 287	(W)	(W)	(NA)	1
Building construction	17 348 328	14 964 673	(NA)	1 191 827	(W)	(W)	(NA)	1
Single-family houses	168 365	132 590	(NA)	17 887	3	3	(NA)	6
Single-family houses, detached	105 870	73 148	(NA)	16 361	4	4	(NA)	6
Single-family houses, attached	62 494	59 442	(NA)	1 526	4	4	(NA)	19
Apartment buildings with two or more apartments	164 967	152 084	(NA)	6 441	2	2	(NA)	13
Other residential buildings, including hotels and motels	113 073	107 257	(NA)	2 908	2	2	(NA)	8
Hotels and motels	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other residential buildings, excluding hotels and motels	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Office buildings	1 431 186	1 327 286	(NA)	51 950	1	1	(NA)	4
Other commercial buildings such as stores, restaurants, and automobile service stations	463 703	419 998	(NA)	21 852	1	1	(NA)	3
Industrial buildings and warehouses	13 997 926	11 901 488	(NA)	1 048 219	(W)	(W)	(NA)	1
Industrial buildings	11 803 981	9 937 181	(NA)	933 400	(W)	(W)	(NA)	1
Warehouses	2 193 945	1 964 306	(NA)	114 819	1	1	(NA)	3
Religious buildings	105 746	94 953	(NA)	5 396	2	2	(NA)	5
Educational buildings	267 626	241 683	(NA)	12 971	2	2	(NA)	8
Hospitals and institutional buildings	480 445	449 397	(NA)	15 524	(W)	(W)	(NA)	3
Other nonresidential buildings	155 296	25 448	(NA)	3 178	9	10	(NA)	17
Nonbuilding construction	480 050	351 245	(NA)	64 402	1	1	(NA)	2
Power plants	6 315	4 246	(NA)	1 034	(W)	(W)	(NA)	(W)
Sewage treatment and water treatment plants	116 707	111 595	(NA)	2 556	(W)	(W)	(NA)	(W)
Other nonbuilding construction	357 028	61 974	(NA)	17 769	1	1	(NA)	4
Construction work, n.s.k.	6 356	4 241	(NA)	1 057	16	18	(NA)	(NA)

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

²In 1982, data for additions, alterations, or reconstruction were collected separately for SIC 1521, 1522, 1531, 1541, and 1542. For all other industries, data are included with "New construction."

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1987

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Number of establishments	All employees**	Payroll, all employees	Value of construction work		Net value of construction work†	Value added††	Cost of construction work sub-contracted to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
	A	B	C	D	E	F	G	H			
All establishments	7 014	143 001	3 618 878	21 461 568	12 095 480	11 094 502	6 881 749	10 367 065	1	1	1
Establishments not specializing by type	1 634	38 192	985 412	6 706 564	(NA)	2 998 584	1 727 718	3 707 980	1	1	1
Establishments specializing 51 percent or more	5 379	104 808	2 633 465	14 755 003	12 095 480	8 095 918	5 154 031	6 659 085	1	1	1
INDUSTRIAL BUILDINGS											
All establishments specializing in type	3 766	85 380	2 200 324	11 816 680	9 784 581	6 424 258	4 176 419	5 392 422	1	1	1
Establishments with —											
100 percent specialization	1 815	41 078	1 050 060	4 634 040	4 634 040	2 969 298	1 897 214	1 664 742	1	2	2
90 to 99 percent specialization	319	7 214	178 471	1 141 816	1 057 841	645 840	430 913	495 975	3	3	4
80 to 89 percent specialization	327	8 055	208 356	1 134 934	937 931	574 193	405 611	560 741	3	2	2
70 to 79 percent specialization	457	8 309	204 857	1 392 664	1 018 434	694 092	419 707	698 572	3	2	2
60 to 69 percent specialization	489	14 227	389 893	2 314 356	1 487 006	923 502	624 991	1 390 854	2	1	1
51 to 59 percent specialization	357	6 495	168 686	1 198 868	649 328	617 331	397 981	581 537	4	3	3
WAREHOUSES											
All establishments specializing in type	1 143	15 278	338 611	2 461 416	1 883 413	1 362 473	780 286	1 098 942	3	2	3
Establishments with —											
100 percent specialization	396	4 281	85 049	494 767	494 767	318 167	180 776	176 600	6	6	9
90 to 99 percent specialization	120	1 623	35 146	226 576	215 311	129 400	74 082	97 175	6	5	5
80 to 89 percent specialization	120	2 109	58 165	462 064	379 883	219 777	111 874	242 287	8	4	3
70 to 79 percent specialization	187	2 095	42 896	398 534	285 684	182 258	86 888	216 275	7	8	8
60 to 69 percent specialization	194	2 661	56 520	433 353	265 338	281 182	197 441	152 171	7	5	7
51 to 59 percent specialization	123	2 507	60 834	446 119	242 427	231 687	129 223	214 432	6	6	7

Table 9. Quarterly Construction Worker Hours and Employment for Establishments With

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Number of establishments	Average number of construction workers	Construction worker hours (thousands)	January to March		April to June	
				Construction workers ¹	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)
	A	B	C	D	E	F	G
United States	7 014	110 785	195 425	104 202	45 056	108 678	48 232
Alabama	109	7 977	14 249	8 593	3 624	8 324	3 909
Alaska	43	246	406	65	30	176	61
Arizona	88	728	1 379	723	330	759	340
Arkansas	39	823	1 711	780	391	816	418
California	797	8 013	13 263	7 394	2 973	7 956	3 294
Colorado	79	833	1 700	693	345	824	412
Connecticut	105	1 012	1 824	871	403	1 004	471
Delaware	30	314	501	296	112	317	124
District of Columbia	3	(S)	(S)	(S)	(S)	(S)	(S)
Florida	348	3 360	6 141	3 368	1 465	3 326	1 469
Georgia	214	4 097	6 875	3 979	1 557	4 076	1 731
Hawaii	17	265	474	267	115	261	115
Idaho	49	1 092	1 595	945	276	1 099	438
Illinois	275	3 514	5 893	3 276	1 355	3 346	1 438
Indiana	218	3 717	6 124	3 311	1 305	3 410	1 407
Iowa	103	1 229	2 163	973	399	1 183	564
Kansas	88	908	1 819	823	401	951	458
Kentucky	83	1 975	3 908	1 820	885	1 960	971
Louisiana	112	1 537	2 690	1 428	641	1 487	646
Maine	*20	249	*508	227	*131	272	*131
Maryland	110	1 925	3 846	1 745	863	1 953	972
Massachusetts	169	2 263	3 956	2 158	926	2 225	985
Michigan	278	4 509	7 797	4 164	1 823	4 535	1 950
Minnesota	102	1 216	2 109	1 071	451	1 235	517
Mississippi	88	958	1 711	927	412	928	408
Missouri	168	3 757	7 223	3 931	1 979	3 874	1 975
Montana	*21	*122	*114	*121	*17	*126	*26
Nebraska	51	558	1 078	432	208	504	245
Nevada	28	403	683	378	146	327	134
New Hampshire	33	564	957	608	248	580	261
New Jersey	309	2 796	4 963	2 458	1 106	2 705	1 218
New Mexico	63	476	687	432	146	479	182
New York	423	5 544	10 464	4 827	2 196	5 122	2 336
North Carolina	190	6 974	12 608	7 109	3 160	6 594	2 939
North Dakota	30	283	547	179	97	240	118
Ohio	380	4 734	8 504	4 148	1 878	4 663	2 078
Oklahoma	53	476	939	440	206	449	228
Oregon	84	814	1 193	711	262	687	259
Pennsylvania	318	5 476	9 249	4 950	2 072	5 370	2 300
Rhode Island	51	666	1 090	567	244	635	266
South Carolina	114	4 940	8 764	4 565	1 975	5 021	2 199
South Dakota	16	171	242	122	55	186	89
Tennessee	137	3 192	5 768	3 123	1 426	3 090	1 418
Texas	389	8 698	14 911	8 972	3 808	8 595	3 754
Utah	74	556	1 024	538	241	544	231
Vermont	11	219	544	193	116	205	132
Virginia	120	2 183	3 747	2 039	832	2 153	899
Washington	144	1 370	2 291	1 052	461	1 272	516
West Virginia	49	582	901	535	189	522	208
Wisconsin	155	2 258	4 015	1 711	695	2 118	941
Wyoming	*14	104	209	79	48	76	40

¹Construction workers during pay periods including 12th of March, May, August, and November.

Payroll by State: 1987

July to September		October to December		Relative standard error of estimate (percent) for column—										Location of establishment
Construction workers¹	Hours worked (thousands)	Construction workers¹	Hours worked (thousands)											
H	I	J	K	B	C	D	E	F	G	H	I	J	K	
116 929	51 738	113 322	50 397	1	1	1	1	1	1	1	1	1	1	U.S.
7 798	3 263	7 192	3 451	2	3	2	3	2	3	2	3	3	3	AL
473	212	272	100	15	19	11	29	18	24	19	15	14	25	AK
716	360	713	347	6	8	7	9	8	9	5	8	6	8	AZ
897	506	801	394	8	12	8	11	8	11	7	11	12	15	AR
8 500	3 437	8 204	3 558	3	3	3	3	3	3	3	3	3	3	CA
965	497	836	445	8	10	14	16	9	12	8	11	5	7	CO
1 098	470	1 076	479	10	9	11	9	10	9	10	9	8	9	CT
335	137	309	126	5	13	4	13	7	14	6	14	3	12	DE
(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	DC
3 324	1 545	3 423	1 660	5	6	5	6	6	7	5	7	4	7	FL
4 260	1 820	4 075	1 765	3	5	3	5	4	5	3	5	3	5	GA
266	121	267	121	10	14	10	13	10	15	12	18	9	11	HI
1 069	384	1 257	495	4	5	3	5	6	5	5	8	2	4	ID
3 709	1 594	3 726	1 506	4	4	4	4	4	5	4	4	4	4	IL
4 060	1 700	4 087	1 710	3	4	4	4	3	4	3	4	3	4	IN
1 407	639	1 355	560	9	11	7	8	11	14	10	14	9	12	IA
977	515	882	444	9	9	10	9	9	8	9	9	9	9	KS
2 088	1 064	2 033	986	5	6	6	8	4	6	5	6	6	7	KY
1 735	739	1 497	663	8	8	8	9	7	9	10	9	8	6	LA
274	*128	225	*116	31	48	32	52	32	50	31	44	29	47	ME
2 101	1 072	1 899	937	9	9	11	10	9	10	9	9	8	9	MD
2 384	1 066	2 287	978	4	6	5	6	4	6	5	8	5	7	MA
4 781	2 070	4 557	1 952	3	3	3	3	3	3	3	4	3	4	MI
1 453	638	1 105	502	6	9	8	11	6	10	7	9	5	10	MN
1 009	457	970	433	9	11	10	12	9	12	11	12	8	10	MS
3 974	1 822	3 247	1 447	4	4	3	3	4	5	5	5	7	5	MO
*118	*24	122	*45	48	51	63	42	45	51	51	52	39	55	MT
666	329	631	294	12	17	12	20	12	19	13	17	11	16	NE
446	192	460	209	9	13	8	12	13	17	8	12	8	15	NV
542	225	528	222	4	5	6	7	6	6	2	4	2	3	NH
2 945	1 335	3 076	1 302	5	8	5	8	5	8	5	8	6	8	NJ
495	170	499	188	14	14	14	16	11	14	18	14	14	14	NM
6 006	2 973	6 220	2 958	5	7	9	16	6	9	4	5	4	4	NY
7 085	3 216	7 108	3 292	2	3	2	2	2	3	2	3	2	3	NC
430	203	283	130	19	23	16	23	19	26	22	22	21	22	ND
5 226	2 330	4 900	2 216	3	5	3	5	3	5	3	5	3	5	OH
533	261	485	242	13	15	16	19	14	17	10	14	13	13	OK
894	321	965	350	12	11	14	11	11	9	11	12	15	14	OR
6 011	2 524	5 576	2 351	3	4	3	4	3	4	3	4	3	4	PA
802	305	661	273	13	12	9	11	10	11	19	15	13	13	RI
5 246	2 357	4 930	2 230	2	3	2	3	2	3	2	3	2	3	SC
189	66	187	51	13	33	18	37	15	37	13	31	8	29	SD
3 251	1 488	3 302	1 436	4	5	4	5	4	5	4	5	5	5	TN
8 394	3 623	8 830	3 726	2	3	2	3	2	3	2	3	2	3	TX
557	289	584	261	11	13	16	16	13	12	10	17	14	11	UT
230	140	247	154	12	19	8	17	13	19	12	20	16	21	VT
2 249	1 016	2 291	999	5	6	6	6	5	6	6	7	5	6	VA
1 645	615	1 513	698	5	7	6	8	6	7	6	8	4	6	WA
606	234	665	269	10	16	9	15	10	17	10	16	11	15	WV
2 492	1 159	2 710	1 218	8	7	9	6	9	9	9	9	7	7	WI
95	50	165	70	30	36	30	36	26	35	24	33	37	39	WY

Table 10. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of construction work	1987					1982 construction receipts for work done in this State ¹	Percent change 1987 (col A) to 1982 (col F)	Relative standard error of estimate (percent) for column—		
	Value of construction work done in this State ¹	Construction work done by establishments located in this State		Construction work done by establishments not located in this State						
		Number	Value of construction work	Number	Value of construction work					
A	B	C	D	E	F	G	A	C	E	
United States -----	21 461 568	6 890	16 856 456	2 266	4 605 111	17 834 735	20.3	1	1	1
Alabama-----	252 542	107	193 832	35	58 710	258 426	-2.3	5	6	1
Alaska-----	73 651	43	(D)	7	(D)	57 877	27.3	9	(D)	(D)
Arizona-----	217 121	88	185 471	33	31 650	237 066	-8.4	11	12	4
Arkansas-----	118 531	39	76 741	57	41 790	117 141	1.2	7	11	7
California-----	2 742 037	796	2 540 857	44	201 179	2 407 698	13.9	2	2	2
Colorado-----	153 100	78	129 634	27	23 465	367 130	-58.3	6	5	19
Connecticut-----	223 261	104	186 140	28	37 120	114 322	95.3	7	8	1
Delaware-----	52 581	30	32 366	59	20 214	72 412	-27.4	6	1	16
District of Columbia-----	34 173	*3	*4 488	27	29 684	35 667	-4.2	8	63	1
Florida-----	693 870	347	530 907	46	162 962	630 864	10.0	4	5	2
Georgia-----	818 557	214	607 696	94	210 861	511 946	59.9	3	3	1
Hawaii-----	75 491	17	73 971	*19	1 520	52 505	43.8	3	3	16
Idaho-----	80 809	49	76 121	8	4 688	47 425	70.4	13	14	(W)
Illinois-----	932 263	274	705 566	78	226 697	856 057	8.9	2	3	1
Indiana-----	585 238	217	527 632	82	57 605	478 071	22.4	3	3	3
Iowa-----	158 927	94	114 264	47	*44 662	189 593	-16.2	13	7	44
Kansas-----	162 911	78	84 917	46	77 993	132 695	22.8	6	11	3
Kentucky-----	357 807	75	254 599	62	103 207	248 261	44.1	4	5	5
Louisiana-----	194 783	112	148 414	17	46 369	477 907	-59.2	6	8	(W)
Maine-----	72 942	*20	65 307	7	7 635	39 639	84.0	19	21	(W)
Maryland-----	236 239	109	187 038	89	49 201	210 112	12.4	5	6	5
Massachusetts-----	801 684	169	(D)	32	(D)	436 010	83.9	3	(D)	(D)
Michigan-----	2 127 126	277	(D)	97	(D)	1 195 228	78.0	1	(D)	(D)
Minnesota-----	284 378	94	272 739	44	11 638	181 445	56.7	6	7	6
Mississippi-----	162 068	88	130 351	34	31 716	134 528	20.5	7	9	2
Missouri-----	573 068	153	521 316	85	51 751	937 498	-38.9	3	3	5
Montana-----	20 023	*20	10 466	26	9 556	45 224	-55.7	16	30	11
Nebraska-----	79 288	51	74 229	20	5 059	64 323	23.3	15	16	6
Nevada-----	137 292	28	111 873	10	25 418	40 922	235.5	6	7	11
New Hampshire-----	53 550	25	46 452	11	7 098	34 700	54.3	3	3	4
New Jersey-----	745 473	308	652 797	61	92 675	418 774	78.0	4	4	2
New Mexico-----	90 511	63	77 252	17	13 259	115 154	-21.4	11	13	1
New York-----	1 457 370	421	1 125 961	64	331 409	671 587	117.0	2	3	1
North Carolina-----	703 135	189	574 070	78	129 065	505 001	39.2	3	3	1
North Dakota-----	34 377	30	26 257	*16	8 119	72 430	-52.5	16	18	37
Ohio-----	1 046 716	372	934 032	110	112 683	652 349	60.5	2	3	1
Oklahoma-----	70 744	44	41 507	40	29 237	219 416	-67.8	9	15	7
Oregon-----	147 618	84	120 231	46	27 386	90 411	63.3	8	9	7
Pennsylvania-----	908 025	308	841 179	81	66 846	760 802	19.4	3	3	4
Rhode Island-----	127 365	51	(D)	3	(D)	31 771	300.9	7	(D)	(D)
South Carolina-----	534 751	112	398 063	70	136 688	374 761	42.7	1	2	2
South Dakota-----	21 118	16	19 365	6	1 752	12 854	64.3	16	18	(W)
Tennessee-----	589 492	136	366 841	49	222 650	344 890	70.9	2	3	(W)
Texas-----	886 285	374	720 354	68	165 930	1 574 942	-43.7	3	4	1
Utah-----	97 884	74	96 110	32	1 774	116 951	-16.3	8	8	17
Vermont-----	38 930	11	35 663	5	3 266	51 126	-23.9	8	9	(W)
Virginia-----	602 337	119	349 033	63	253 304	430 211	40.0	3	6	(W)
Washington-----	349 666	142	307 856	46	*41 810	385 343	-9.3	9	8	45
West Virginia-----	98 056	49	43 551	46	54 505	93 371	5.0	4	9	2
Wisconsin-----	406 645	151	354 000	46	52 644	252 295	61.2	10	12	2
Wyoming-----	29 733	*14	18 664	27	11 069	47 575	-37.5	13	17	22

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 11. Dollar Value of Business Done for Establishments With Payroll by Kind of Business Activity: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kinds of business activities	Dollar value of business done ¹		Relative standard error of estimate (percent)	
	1987	1982	1987	1982
All kinds of business	22 316 867	18 107 888	1	(W)
General building contractor	20 570 340	14 778 024	1	(W)
Operative builder	48 337	53 948	13	3
Residential remodeling contractor	74 026	31 516	7	7
Highway and street construction	22 861	128 514	4	1
Carpentry contractor	6 929	55 144	3	5
Concrete construction	10 546	89 678	6	4
Millwright	19 561	2 844	1	6
Other construction activities	732 284	(S)	6	(S)
Manufacturing	95 455	33 986	3	3
Investment builder	71 999	50 605	8	5
Other activities	505 957	(S)	3	(S)
Kind of business activity, n.s.k.	158 572	(S)	3	(S)

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 12. Selected Industry Ratios for Establishments With Payroll: 1987 and 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics			Relative standard error of estimate (percent) for 1987
	1987	1982	
AVERAGE PER ESTABLISHMENT			
Number of employees**	20.4	20.7	2
Number of construction workers	15.8	16.3	2
Number of all other employees	4.6	(NA)	2
Payroll, all employees	\$1,000 516.0	434.6	2
Payroll, construction workers	do 356.0	315.3	2
Payroll, other employees	do 160.0	119.3	2
Dollar value of business done	do 3 181.8	2 435.5	2
Value of construction work ¹	do 3 059.8	2 398.8	2
Cost of materials, components, supplies, and fuels	do 722.6	512.6	2
Construction work subcontracted to others	do 1 478.1	1 148.7	2
Rental cost for machinery, equipment, and buildings	do 35.0	22.0	2
Capital expenditures, other than land	do 29.5	22.4	2
Gross book value of depreciable assets	do 197.1	229.3	2
AVERAGE PER EMPLOYEE			
Payroll, all employees	do 25.3	21.0	(W)
Dollar value of business done	do 156.1	117.7	1
Value added††	do 48.1	37.4	1
AVERAGE PER CONSTRUCTION WORKER			
Payroll, construction workers	do 22.5	19.3	(W)
Value of construction work ¹	do 193.7	146.8	1
Construction worker hours	1 764.0	1 806.2	1
AVERAGE PER OTHER EMPLOYEE			
Payroll, other employees	\$1,000 34.8	(NA)	1
AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK¹			
Payroll, all employees .....	.169	.181	(W)
Cost of materials, components, supplies, and fuels .....	.236	.214	(W)
Cost of construction work subcontracted to others .....	.483	.479	(W)
Rental cost for machinery, equipment, and buildings .....	.011	.009	

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Construction worker hours per construction worker	Value of construction work per construction worker (\$1,000)	Average per dollar of value of construction work			
					Payroll, all employees	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted to others	Rental cost for machinery, equipment, and buildings
United States -----	20.4	25.3	1 764.0	193.7	.169	.236	.483	.011
Alabama -----	80.3	26.6	1 786.3	73.2	.399	(D)	(D)	.013
Alaska -----	8.4	34.3	1 650.4	227.5	.221	(D)	.298	.011
Arizona -----	12.4	23.5	1 894.2	254.8	.138	.211	.513	.011
Arkansas -----	26.1	20.2	2 079.0	103.7	.241	.319	.346	.014
California -----	14.0	30.8	1 655.2	329.9	.130	.202	.532	.012
Colorado -----	14.2	24.1	2 040.8	172.7	.188	.187	.541	.017
Connecticut -----	12.9	26.8	1 802.4	190.9	.188	.229	.393	.009
Delaware -----	14.2	18.4	1 595.5	133.6	.188	(D)	.359	.013
District of Columbia -----	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Florida -----	13.1	20.0	1 827.7	177.1	.153	.271	.461	.013
Georgia -----	24.4	20.1	1 678.1	164.5	.155	.241	.434	.009
Hawaii -----	21.9	32.3	1 788.7	279.1	.163	(D)	.484	.014
Idaho -----	45.7	(D)	1 460.6	(D)	(D)	(D)	(D)	(D)
Illinois -----	17.5	(D)	1 677.0	221.0	(D)	.219	.561	.008
Indiana -----	20.9	26.3	1 647.6	155.4	.207	.295	.383	.008
Iowa -----	15.2	19.6	1 760.0	121.4	.206	.350	.297	.007
Kansas -----	14.2	20.8	2 003.3	180.3	.159	.341	.377	.009
Kentucky -----	30.0	23.3	1 978.7	161.5	.182	.280	.485	.014
Louisiana -----	16.9	18.7	1 750.2	101.2	.229	.275	.260	.024
Maine -----	*18.3	21.4	*2 040.2	268.2	.117	.270	.531	.010
Maryland -----	21.2	21.1	1 997.9	128.0	.199	.222	.338	.013
Massachusetts -----	18.6	26.2	1 748.1	268.4	.136	.209	.534	.016
Michigan -----	21.3	28.4	1 729.2	252.9	.148	.177	.668	.010
Minnesota -----	15.7	25.4	1 734.4	237.7	.141	.298	.328	.017
Mississippi -----	13.7	16.8	1 786.0	150.9	.140	.391	.332	.006
Missouri -----	29.5	29.1	1 922.5	256.2	.150	.188	.463	.006
Montana -----	*8.0	*17.9	*934.4	*211.2	.117	(D)	.541	(S)
Nebraska -----	14.5	20.0	1 931.9	154.8	.171	.308	.366	.005
Nevada -----	19.3	25.4	1 694.8	287.2	.118	.159	.586	.006
New Hampshire -----	23.2	26.5	1 696.8	(D)	(D)	(D)	(D)	(D)
New Jersey -----	12.7	28.0	1 775.0	249.1	.157	.226	.477	.011
New Mexico -----	10.2	18.1	1 443.3	163.5	.150	.217	.463	.013
New York -----	17.6	30.6	1 887.4	211.3	.194	.198	.449	.015
North Carolina -----	45.3	23.8	1 807.9	179.0	.164	.264	.536	.020
North Dakota -----	12.2	19.6	1 932.9	113.6	.223	.460	.234	.012
Ohio -----	16.7	26.3	1 796.4	216.8	.162	.242	.495	.010
Oklahoma -----	11.2	23.0	1 972.7	120.3	.238	.311	.358	.010
Oregon -----	12.7	22.8	1 465.6	158.5	.189	.301	.325	.009
Pennsylvania -----	22.0	25.2	1 689.0	(D)	(D)	(D)	(D)	(D)
Rhode Island -----	18.6	28.4	1 636.6	404.1	.100	.191	.660	.007
South Carolina -----	54.2	27.6	1 774.1	257.5	.134	.271	.399	.011
South Dakota -----	14.2	18.4	1 415.2	126.7	.193	(D)	.366	.008
Tennessee -----	28.2	18.9	1 807.0	137.5	.167	.281	.400	.008
Texas -----	26.8	20.6	1 714.3	93.2	.265	.282	.345	.014
Utah -----	9.8	23.1	1 841.7	197.6	.153	.243	.471	.015
Vermont -----	25.3	24.4	2 484.0	186.8	.166	.240	.513	.007
Virginia -----	22.9	19.5	1 716.4	179.9	.137	.199	.576	.008
Washington -----	13.0	27.0	1 672.3	240.8	.153	.221	.504	.013
West Virginia -----	14.0	21.4	1 548.1	91.4	.275	.252	.223	.017
Wisconsin -----	18.3	25.8	1 778.1	163.6	.198	.256	.437	.006
Wyoming -----	*10.9	21.8	2 009.6	193.3	.166	.249	.489	*.011



APPENDIX A.

Explanation of Terms

Construction—Is composed of three broad categories:

1. **New construction**—Includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators, and plumbing, heating, and air-conditioning supplies and equipment.
2. **Additions, alterations or reconstruction**—Includes construction activity making structural changes to existing facilities. Generally, this type of activity is considered a capital investment in the property.
3. **Maintenance and repair**—Includes construction done for the purpose of upkeep of property rather than additional investment in the property.

Examples of the general distinction between maintenance and repair and reconstruction are provided here: roof repairs, including the replacement of shingles, gutters, etc., are classified under maintenance and repairs. A complete reroofing, however, is classified as reconstruction.

Number of establishments in business during year—Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

Proprietors and working partners—These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

All employees—Comprise all full-time and part-time employees on the payrolls of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not.

All employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

Construction workers—Includes all workers up through the working foreman level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment

operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category but are included in the "other employees" category.

Other employees—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

Construction worker hours—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1987.

Payroll—Includes the gross earnings paid in the calendar year 1987 to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

Employer costs for fringe benefits (supplemental labor costs)—Represents expenditures made by the employer during 1987 for legally required and voluntary fringe benefit programs for employees.

Legally required contributions—Include Social Security contributions, unemployment compensation, workman's compensation, and State temporary disability payments.

Voluntary payments—Include life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Dollar value of business done comprises the following detail:

Value of construction work done—Includes all value of construction work done during 1987 for construction work performed by general contractors, special trades contractors, subcontractors, and land development and improvement work. Included is new construction, additions and alterations or reconstruction, and maintenance and repair construction work. Also included is the value of any construction work done by the reporting establishments for themselves.

Builders were instructed to include the value of buildings and other structures built or being built for sale in 1987 but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease.

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators, etc., were instructed to include both the value for the installation and the receipts covering the price of the items installed.

Excluded was the cost of industrial and other specialized machinery and equipment which are not an integral part of a structure.

Land receipts—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in the value of construction work done.)

Other business receipts—Includes business receipts not reported as value of construction work done or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

Excluded was the value of construction work done and receipts from other business operations in foreign countries and non-operating income such as interest and dividends.

Net value of construction work—Derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Value added—Derived for each establishment, value added is equal to dollar value of business done, less costs for construction work subcontracted to others, and costs for materials, components, supplies and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, land receipts are also subtracted from dollar value of business done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Selected costs—Represents the costs for materials, components, and supplies; costs for construction work subcontracted to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

Costs for materials, components, and supplies include:

- total costs to reporting establishments during 1987 for the purchase of all materials, components, and supplies, except fuels. (Supplies include expendable tools which are charged to current accounts.)
- freight and other direct charges should represent only amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company.
- costs for materials, components, and supplies used by the reporting establishments in the construction or reconstruction of buildings/structures for themselves which are chargeable to their fixed assets accounts, are included in this item as are costs for materials bought and resold to others.
- costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

Excluded from this item are:

- industrial and other specialized machinery and equipment, such as printing presses; computer systems; etc., which are not an integral part of a structure
- materials furnished to contractors by the owners of projects.

Costs for construction work subcontracted to others include:

- all costs during 1987 for construction work subcontracted out to other construction contractors.

Excluded from this item are:

- The costs to the reporting establishment for its purchases of materials, components, and supplies, provided to a subcontractor for his use. Such costs are reported under a separate category, "costs for materials, components, and supplies."
- costs for the rental of machinery or equipment.

Costs for selected power, fuels, and lubricants include:

- costs for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the company.
- costs for natural and manufactured gas, fuel oil, coal and coke products, etc.

Rental costs for machinery, equipment, and buildings—Includes all costs during 1987 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It

excludes costs for the rental of land. It also excludes costs under agreements which, in effect, are conditional sales contracts such as capital leases. Such costs are included in “capital expenditures.”

Selected purchased services—Includes all costs during 1987 for communication services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies, or from other establishments of the same company. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property, or the cost of adapting it for another use. Such costs are included in “capital expenditures”.

Assets and depreciation—Refers to the original cost of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on assets and depreciation were collected separately for: (1) buildings and other structures, additions, and related facilities; and, (2) machinery and equipment.

Respondents were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1987.

Capital expenditures—Refers to all costs actually incurred during 1987 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment’s own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment’s own forces; and the acquisition of machinery and equipment.

If leasing arrangements met the criteria set down by the Financial Accounting Standards Board (FASB) for a capital lease, respondents were instructed to report the original cost or market value of that equipment or building as a fixed asset and capital expenditure if acquired during 1987.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

Inventories—Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others, but held by the reporting establishment.

Builders who built on their own account for sale were requested to report work in progress and finished units not sold for buildings and other structures built for sale.

Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

Ownership of construction projects—This item shows the distribution of the value of construction work done by ownership of the project, that is, Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken during the construction phase. Government owned projects are shown separately for Federal, and State and local governments.

Value of construction work subcontracted in from others—Includes the value of construction work during 1987 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

Types of construction—This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1987. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose, i.e, office and residential, or commercial, they were to classify the building by major purpose.

In addition all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types. See the definition of “Construction” for the meanings of these terms.

Building construction:

- **Single-family houses, detached**—Includes all residential buildings constructed for one family use.
- **Single-family houses, attached (include town-houses)**—Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken wall from ground to roof.
- **Apartment buildings with two or more apartments**—Includes high-rise, low-rise, or any structures containing two or more housing units (excluding attached single-family houses and townhouses described above).
- **Hotels and motels**—Includes hotels, motels, and tourist cabins intended for transient accommodations.

- **Other residential buildings**—Includes dormitories, fraternity and sorority houses, nurses homes, and other nonhousekeeping residential structures.
- **Office buildings**—Includes all buildings which are used primarily for office space or for government administrative offices. Also included are banks or financial buildings which are three stories or more.
- **Other commercial buildings, such as stores, restaurants, and automobile service stations**—Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Industrial buildings**—Includes all industrial buildings and plants which are used to house production and assembly activities. Heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are not included in this category, but under nonbuilding construction.
- **Warehouses**—Includes commercial warehouses, cold storage plants, grain elevators, mini-warehouses, and other such storage buildings.
- **Religious buildings**—Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings**—Includes all buildings which are used directly in administrative and instructional activities, such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories which are not a part of a manufacturing establishment, are also included.
- **Hospitals and institutional buildings**—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Farm buildings, nonresidential**—Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings**—Includes buildings which are used primarily for entertainment, social and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- **Other nonresidential buildings**—Includes nonresidential buildings which are not classified elsewhere, such as fire stations, prisons, civic centers, bus and air passenger terminals and hangars.

Nonbuilding construction:

- **Highways, streets and related work, such as installation of guardrails, highway signs, etc.**—Includes streets, roads, alleys, sidewalks, curbs and gutters, culverts, right-of-way drainage, erosion control and lighting. Also includes earthwork protective structures when used in connection with road improvements.
- **Outdoor swimming pools**—Includes wading pools and reflecting pools.
- **Recreational facilities**—Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Bridges and elevated highways**—Includes viaducts and overpasses; roads, highways, railroads, and causeways built on structural supports.
- **Tunnels**—Includes highway, pedestrian, and railroad tunnels.
- **Railroad construction**—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- **Subway construction**—Includes urban mass transit subway systems above or below ground.
- **Dam and reservoir construction**—Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Marine construction**—Includes dredging, underwater rock removal, breakwaters, navigational channels, jetties, and locks.
- **Harbor and port facilities**—Includes docks, piers, and wharves.
- **Conservation and development construction**—Includes land reclamation, irrigation projects, drainage canals, levees, and flood control projects.
- **Power and communication transmission lines, towers, and related facilities**—Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, electric light and power facilities.
- **Power plants, except nuclear**—Includes electric and steam generating plants.
- **Power plants, nuclear**—Includes atomic energy plants, and nuclear reactors.
- **Sewers, sewerlines, and related facilities**—Includes sanitary and storm sewers, and related facilities.
- **Sewage treatment plants**—Includes sewage treatment and waste disposal plants.
- **Water mains and related facilities**—Includes water supply systems and related facilities.

- **Water treatment plants**—Includes water filtration and water softening plants.
- **Pipeline construction other than sewer or waterlines**—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.**—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- **Other nonbuilding construction**—Includes all types of nonbuilding construction, not included elsewhere.



APPENDIX B.

Standard Industrial Classification Titles for Industry Groups and Industries

SIC code	Industry titles	SIC code	Industry titles
15	BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS	17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.
152	General Building Contractors—Residential Buildings	173	Electrical Work Special Trade Contractors
1521	General Contractors—Single-Family Houses	1731	Electrical Work Special Trade Contractors
1522	General Contractors—Residential Buildings, Other Than Single-Family	174	Masonry, Stone Work Tile Setting, and Plastering Special Trade Contractors
153	Operative Builders	1741	Masonry, Stone Setting, and Other Stone Work Special Trade Contractors
1531	Operative Builders	1742	Plastering, Drywall, Acoustical, and Insulation Work Special Trade Contractors
154	General Building Contractors—Nonresidential Buildings	1743	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
1541	General Contractors—Industrial Buildings and Warehouses	175	Carpentry and Floor Work Special Trade Contractors
1542	General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses	1751	Carpentry Work Special Trade Contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—CONTRACTORS	1752	Floor Laying and Other Floor Work Special Trade Contractors, Not Elsewhere Classified
161	Highway and Street Construction, Except Elevated Highways	176	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
1611	Highway and Street Construction Contractors, Except Elevated Highways	1761	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
162	Heavy Construction, Except Highway and Street Construction	177	Concrete Work Special Trade Contractors
1622	Bridge, Tunnel, and Elevated Highway Construction Contractors	1771	Concrete Work Special Trade Contractors
1623	Water, Sewer, Pipeline, and Communications and Powerline Construction	178	Water Well Drilling Special Trade Contractors
1629	Heavy Construction, Not Elsewhere Classified	1781	Water Well Drilling Special Trade Contractors
17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS	179	Miscellaneous Special Trade Contractors
171	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1791	Structural Steel Erection Special Trade Contractors
1711	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1793	Glass and Glazing Work Special Trade Contractors
172	Painting and Paper Hanging Special Trade Contractors	1794	Excavation Work Special Trade Contractors
1721	Painting and Paper Hanging Special Trade Contractors	1795	Wrecking and Demolition Work Special Trade Contractors
		1796	Installation or Erection of Building Equipment, Special Trade Contractors, Not Elsewhere Classified
		1799	Special Trade Contractors, Not Elsewhere Classified
		6552	LAND SUBDIVIDERS AND DEVELOPERS, EXCEPT CEMETERIES



APPENDIX C.

Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia
Maryland

SOUTH ATLANTIC STATES—Con.

North Carolina
South Carolina
Virginia
West Virginia

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

Alaska
California
Hawaii
Oregon
Washington

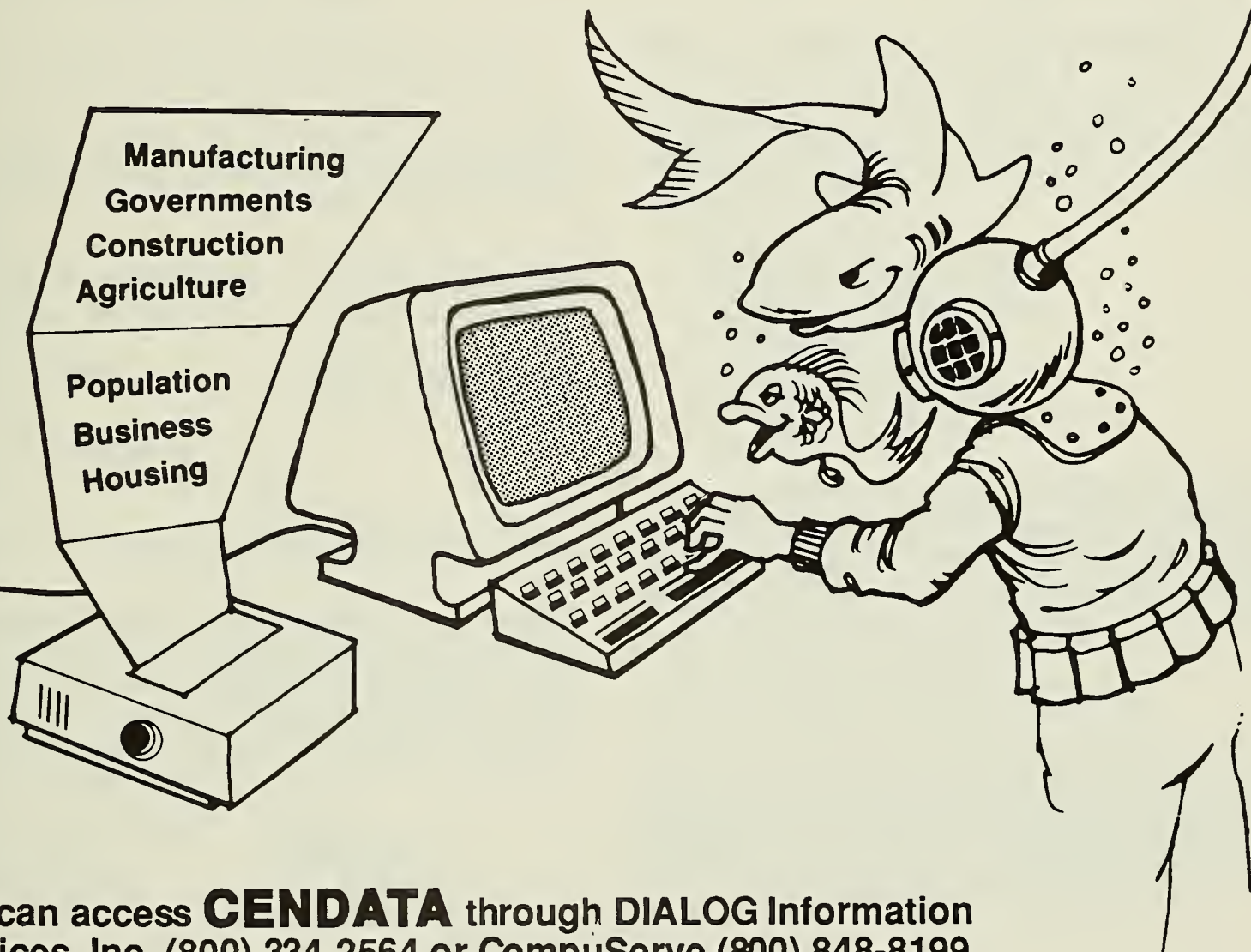


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UNITED STATES DEPARTMENT OF AGRICULTURE

OFFICE OF THE SECRETARY

WASHINGTON, D. C.

Report of the Secretary of the Department of Agriculture
for the year ending June 30, 1901

Published by the Government Printing Office
Washington, D. C.

PUBLICATION PROGRAM

1987 CENSUS OF CONSTRUCTION INDUSTRIES

The Census of Construction Industries is taken once every 5 years. The census covers all establishments engaged in construction, including:

- Building contractors
- Heavy construction contractors
- Special trade contractors (including plumbers, carpenters, painters, electricians)
- Land developers and subdividers

Data products in the Census of Construction Industries are issued in 4 publication series and in 3 other media:

- Printed reports [P]
- CD-ROM [C]
- Computer tape [T]
- Highlights online [+]

Preliminary Industry Series (CC87-I-1(P) through CC87-I-28(P))

(Available November 1988 through May 1989) [P]

Twenty-seven separate industry reports and a United States summary report, providing national statistics for establishments with payroll. Statistics shown for 1987 include:

- Number of establishments
- Value of construction work done, by type of structure
- Number of employees
- Payroll
- Hours worked
- Selected operating costs

Final Industry Series (CC87-I-1 through CC87-I-28)

(Available June 1989 through November 1989) [P] [C] [T] [+]

Twenty-seven separate industry reports and a United States summary report, providing statistics for the Nation and individual States on establishments with payroll. These reports update figures from the preliminary industry series (employment, payroll, value of construction, etc.) and provide measures of the following:

- Capital expenditures
- Assets
- Inventories
- Depreciation
- Industry profiles
- And much more

Geographic Area Series (CC87-A-1 through CC87-A-10)

(Available January 1990 through March 1990) [P] [C] [T] [+]

Nine reports on the construction industries, representing each census geographic division, and a United States summary report. Regional reports provide detailed data for States and metropolitan statistical areas.

Subject Report—Legal Form of Organization and Type of Operation (CC87-S-1)

(Available May 1990) [P]

One report providing selected national statistics for each industry by legal form of organization and type of operation. This report includes data for establishments with and without payroll. Data in this report include—

- Employment
- Payroll
- Value of construction work done
- Selected operating costs

OTHER ECONOMIC CENSUSES REPORTS

The Census of Construction Industries is part of the 1987 Economic Censuses. These are conducted at five-year intervals in years ending in 2 and 7 and consist of seven separate censuses:

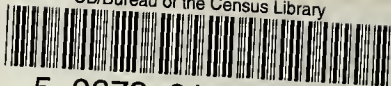
- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction

...plus several related programs: enterprise statistics; information on minority-owned and women-owned businesses; and the Census of Outlying Areas, including separate economic censuses of Puerto Rico and other outlying areas. The Census of Agriculture and Census of Governments are conducted separately.

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General Contractors—Industrial Buildings and Warehouses

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